

Arizona CTE Career Preparation Standards Framework for CARPENTRY

Prior to convening the Skill Standards Validation Committee, no Arizona standards for this program existed. The following standards were established by the committee.

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STANDARD A -- MAINTAIN A SAFE WORK ENVIRONMENT IN CARPENTRY	
1	Identify regulations pertaining to job site hazards and safety in carpentry
2	Use appropriate personal protective equipment for carpentry
3	Apply the procedures for the handling of hazardous materials/chemicals including the use of MSDS (Material Safety Data Sheets)
4	Evaluate types of fires and use of appropriate fire extinguishers
5	Maintain worksite safety and housekeeping (lighting, safety, etc.)
6	Identify first aid procedures
7	Identify safety plan for emergency situations
8	Demonstrate safe procedures for lifting heavy objects
9	Follow safe procedures in set up of scaffold and use of ladder
10	Demonstrate safe work procedures around electrical hazards
11	Explain the purpose of OSHA and how it promotes safety on the job
12	Use correct procedures for lockout/tag out
13	Report safety hazards
STANDARD B -- OPERATE HAND AND POWER TOOLS/EQUIPMENT UTILIZED IN CARPENTRY	
1	Use and maintain hand tools
2	Use and maintain portable power tools, powder actuated tools, pneumatic tools, and extension cords
3	Use and maintain stationary power equipment
4	Inspect condition of hand and power tools before use.

These technical knowledge and skill standards were validated by a Skill Standards Validation Committee on October 24, 2007, and used in the adaptation, adoption, and development of test items for pilot testing in Spring 2008.

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STANDARD C -- USE PLANS, SPECIFICATIONS AND CODES	
1	Identify blueprint terms, components, and symbols
2	Identify a set of drawings/symbols/scales and legends
3	Read material schedules on blueprints
4	Relate information on blueprints to actual locations
5	Identify and use drawing dimensions
6	Recognize building codes (i.e. national, state, and local)
STANDARD D -- LAY OUT BUILDING LINES	
1	Identify the use and care of precision measuring instruments
2	Recognize building lines
3	Use a builder's level to determine site and building elevations
STANDARD E -- PERFORM CONCRETE/MASONRY WORK	
1	Prepare and pour a footing
2	Construct a foundation wall or pier
3	Lay brick/block to specification
4	Cut brick and block accurately
5	Demonstrate the process of depositing, spreading, consolidating, and striking off concrete in a form

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STANDARD F -- CUTTING AND SHAPING STOCK	
1	Crosscut stock to size.
2	Bore holes.
3	Square stock to 90 degrees.
4	Cut miter joint.
STANDARD G -- ASSEMBLING AND FASTENING COMPONENTS	
1	Apply clamping devices.
2	Fasten stock with metal fasteners (for example, nails, screws, staples, and other mechanical fasteners).
3	Identify nailing schedules for selected materials according to national, state, and local building codes.
4	Explain the safe use of nail guns.
STANDARD H -- LAYOUT AND INSTALL FLOOR SYSTEMS	
1	Install sill plate(s)
2	Set posts
3	Construct and/or place girders/beams
4	Match selected fasteners used in floor framing to their correct uses according to national, state, and local building codes
5	Estimate the amount of material needed to frame a floor assembly
6	Construct floor assembly
7	Install joists for a cantilever floor

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8	Install a subfloor using tongue and groove/OSB panels
9	Identify different floor systems (e.g. - cantalever, TGI truss, conventional, etc.)
STANDARD I -- DEMONSTRATE WALL AND CEILING FRAMING	
1	Lay out basic wall lines including plates, corner posts, door and window openings, partition Ts, bracing and plan for installation of fire stops
2	Assemble wood stud walls
3	Assemble metal stud walls
4	Lay out, assemble, erect, and brace exterior walls for a frame building
5	Cut and install ceiling joists on a wood frame building
STANDARD J -- FRAME AND FINISH A ROOF	
1	Construct conventional roof or set truss systems
2	Install roof sheathing
3	Frame a roof opening
4	Erect a gable roof using trusses
STANDARD K -- IDENTIFY THERMAL AND MOISTURE PROTECTION	
1	Install insulation material
2	Install vapor barrier
3	Identify type and use of vapor barrier
4	Identify type and use of insulation

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STANDARD L -- APPLY EXTERIOR FINISHES	
1	Install frieze boards or soffit
2	Install exterior moldings and trim
3	Demonstrate the installation of various types of siding
4	Apply correct installation to eliminate water intrusion
STANDARD M -- INSTALL DOORS AND WINDOWS	
1	Install doors
2	Install door hardware
3	Install windows
STANDARD N -- INSTALL INTERIOR TRIM AND STAIRS	
1	Install baseboards and casings
2	Lay out and cut stringers
3	Determine the number and sizes of risers and treads required for a stairway
4	Build a small stair unit
5	Lay out a skirt board
STANDARD O -- INSTALL INTERIOR WALL AND CEILING FINISH	
1	Demonstrate the proper techniques for cutting drywall
2	Fasten drywall to ceiling and walls

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STANDARD P -- INSTALLING, MOLDINGS, PANELING, AND OTHER MILLWORK	
1	Install ceiling molding(s).
2	Install threshold.
3	List wall paneling installation procedures
4	Define steps in casing a window
STANDARD Q -- INSTALLING CABINETS AND CABINET TOPS	
1	Install wall cabinet(s).
2	Install base cabinet(s).
3	Install medicine cabinet.
4	Assemble prefabricated cabinet(s).
5	Install pulls and knobs.
6	Install prefabricated cabinet top(s).
STANDARD R -- INSTALLING SHELVING AND ASSESSORIES	
1	Install shelving.
2	Install accessories (e.g. - grab bars, door knobs, toilet paper dispensers, etc.)
3	Install mirrors.
STANDARD S -- INSTALLING WOOD FLOORING AND FLOOR COVERING	
1	Install underlayment.

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2	Install finished wood flooring.
3	Install tongue and groove flooring
4	Identify different kinds of flooring material.
STANDARD T -- PAINTING AND FINISHING	
1	Prepare exterior surface(s).
2	Caulk exterior surfaces.
3	Prepare interior surface(s).
4	Repair damaged drywall.
5	Repair damaged plaster.
6	Apply finish to ceilings, walls, and sidings.
7	Apply finish to trim and moldings.
8	Apply stain to surface.
9	Install wall covering(s).